

**REMARKS**

**I. Status of Application**

**Claims 1-12, 20-23, and 26-31** are all the claims pending in the application. By this Amendment, Applicants amend claims 1, 2, 5, 7, 20, and 21, cancel claims 13-19, 24, and 25, and add claims 26-31. No new subject matter has been entered. Support for new claims 26, 27, and 30 can be found, for instance, on page 75, line 23 to page 76, line 1 of the specification.

**II. Summary of Office Action**

**Claims 7 and 8** are rejected under 35 U.S.C. 112, second paragraph.

**Claims 1-8, 10, and 20-22** are rejected under 35 U.S.C. 102(b) as being anticipated by Touto (Japanese Patent Publication No. 2001-192844).

**Claims 1, 9, 11, 12, 20, and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakizawa (Japanese Patent Publication No. 2003-332738 / U.S. Patent Application Publication No. 2005/0175824), further in view of Touto.

**III. Preliminary Matters**

Applicants thank the Examiner for considering the references listed on PTO/SB/08 forms submitted with the Information Disclosure Statements filed May 30, 2006, October 8, 2009, January 19, 2010, July 20, 2010, and December 20, 2010.

However, the Examiner has not acknowledged the claim for foreign priority and receipt of the certified copies of the foreign priority documents. **It is respectfully requested the Examiner acknowledge the priority claims and receipt of the certified copies of the foreign priority documents by checking the boxes 12, 12(a), and 12(a)(3) on the PTOL-326 form.**

The copies of the certified copies of the foreign priority documents can be found in PAIR with a date of May 30, 2006.

Also, the Examiner has not indicated acceptance of the drawings filed May 30, 2006. **It is respectfully requested that the Examiner indicate acceptance of the drawings by checking box 10(a) on the PTOL-326 form.**

**IV. Claim Rejections - 35 U.S.C. § 112**

**Claims 7 and 8** are rejected under 35 U.S.C. 112, second paragraph.

Claim 7 has been amended to overcome the rejection under 35 U.S.C. § 112. Support can be found on page 28, lines 11 to 13; and page 87, line 25 to page 88, line 4 of the specification.

It is respectfully requested this ground of rejection of claims 7 and 8 be withdrawn.

**V. Claim Rejections - 35 U.S.C. § 102**

**Claims 1-8, 10, and 20-22** are rejected under 35 U.S.C. 102(b) as being anticipated by Touto.

According to independent claims 1, 3 and 20, a specific compound which has both “a polymerizable group” and “a specific functional group” is used to form a polymer layer.

That is, claims 1 and 20 recite a compound which has both “a polymerizable group” and “a functional group that interacts with an electroless plating catalyst or a precursor thereof.”

Claim 3 recites a compound which has both “a polymerizable group” and “a functional group whose structure is changed to a structure that interacts with the electroless plating catalyst or precursor thereof or loses the interaction capability with the electroless plating catalyst or precursor thereof.”

**Touto** does not disclose or suggest the specific compounds which have both “a polymerizable group” and “a specific functional group” as recited in each of claims 1, 3 and 20.

Further, in the Office Action, the Examiner asserts that the photosensitive resin disclosed in Touto inherently has a functional group (i.e., a polymer of polyether sulphone and diaryl terelathalate have ether, thio and aryl functional groups).

However, Applicants respectfully submit that polyether sulphone and diaryl terelathalate do not react with each other, and each of the compounds independently forms a different polymer. Therefore, in Touto, there is no disclosure of a material which has both a polymerizable group and a functional group.

Additionally, regarding claim 3, the specific functional group contained in the polymer is structurally changed when heat, acid, or radiation is applied pattern-wise to the polymer layer. The changed structure of the functional group results in exhibiting interaction capability with the electroless plating catalyst or precursor thereof, or, losing interaction capability with the

electroless plating catalyst or precursor thereof. Touto does not disclose or suggest such a functional group and mechanism, as recited in claim 3.

At least for the foregoing reasons, it is respectfully submitted that **claims 1, 3, and 20** are patentable over Touto. **Dependent claims 2, 4-8, 10, 21, and 22** are patentable at least by virtue of their respective dependencies.

Additionally, regarding claims 2, 4 and 6, Touto does not disclose or suggest the process in which a specific polymerization initiating layer is formed as an independent layer prior to forming a polymer layer.

Regarding claim 5, as explained above, Touto does not disclose or suggest a compound having “a polymerizable group” and “a specific functional group” to form a polymer layer.

Regarding claim 7, Touto does not disclose or suggest processes (I-3-1) and (1-3-2). According to exemplary embodiments, a polymer layer in the pattern form is made by ablation which occurs by irradiating the polymer layer with radiation. Such a process is not disclosed or suggested in Touto. That is, ablation of the polymer layer in exemplary embodiments is completely different from removal or dissolution of the irradiated layer by development taught in Touto.

Accordingly, **claims 2-7** are patentable at least for these additional reasons.

## **VI. Claim Rejections - 35 U.S.C. § 103**

**Claims 1, 9, 11, 12, 20, and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakizawa in view of Touto.

As discussed above, Touto does not teach or suggest all of the features of independent claim 1 or 20. Wakizawa does not cure any above-discussed deficiency of Touto. Therefore, even by combining the disclosures of Touto and Wakizawa, the subject matter of claim 1 or 20 will not be achieved.

Accordingly, **claims 1 and 20** are patentable over Wakizawa and Touto, taken singularly or in combination. **Dependent claims 9, 11, 12, and 23** are patentable at least by virtue of their respective dependencies.

**VII. New Claims**

In order to provide more varied protection, Applicants add new **claims 26-31** which are patentable at least by virtue of their dependencies and additional features set forth therein.

**CONCLUSION**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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